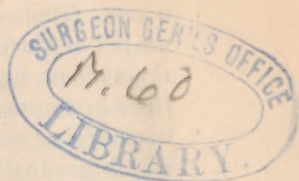


Jones (Jes)

OBSERVATIONS ON THE AFRICAN YAWS (FRAMBCESIA, RUBULA, PIAN, EPIAN, SYPHILIS ÆTHIOPICA, SYPHILIS VEL LUES ÆTHIOPICA, SYPHILIS AFRICANA); AND ON LEPROSY (LEPRA TUBERCULOSA, LEPRA HÆBRÆORUM, LEPRA ÆGYPTICA, LEPRA LEONTINA, LEPRA ARABIUM) IN INSULAR AND CONTINENTAL AMERICA.

BY JOSEPH JONES, M.D.,



Professor of Chemistry and Clinical Medicine, Medical Department University of Louisiana; Visiting Physician of Charity Hospital, New Orleans;
Member of Board of Health, State of Louisiana.

(Extract from Proceedings of New Orleans Medical and Surgical Association.)

At a meeting of the New Orleans Medical and Surgical Association, held October 27th, 1877, Dr. Joseph Jones presented the following case of Yaws, with the accompanying observations upon the history of this disease in the West Indies and Southern States, together with certain facts establishing the existence of Leprosy in Louisiana, during the French and Spanish domination, and at the present time.

Case of Yaws. Augustin Fainé, aged 22 years; 5 feet 7 inches in height; weighs about 150 lbs.; black hair; dark eyes; copper-colored skin; in the color of the skin and his straight black hair, resembles more nearly the Mongolian race; native of the Isle of Bourbon, off the coast of Africa.

The patient states that his father was a native of France and

his mother a native of Africa. Sailor by occupation. Admitted to Charity Hospital, ward 30, bed 440, October 1877. The patient states that he contracted the disease with which he is now suffering, on the the coast of Africa three months ago. He says that the ship upon which he was employed was visited by natives, several of whom were suffering with a similar disease, and he supposed that the disease was contracted from them. Had lived on the Island of Bourbon until thirteen years of age, and from that time until his admission into the Charity Hospital has followed the seas, and ten months ago suffered with scurvy, his gums being swollen and livid, and the surface of the body mottled with purpuric spots. He states that the yaws first made its appearance on the face in the form of two or three vesicles, about the size of a pin's head, which gradually enlarged to the size of a pea. The number of the vesicles increased, several of which united or became confluent on the face, forming irregular elevations about an inch in diameter. In ten or twelve days after their first appearance, each vesicle became umbilicated and burst, discharging sanious fluid, and then drying up, formed scabs, which gradually fell off. In the meantime other vesicles formed upon the face and extremities. After the eruption had continued about six weeks, any abrasion of the skin upon any part of the body would result in the formation of raw suppurating sores, upon which scabs would form. The disease attacked with greatest violence the soles of the feet, toes and fingers, causing swelling, ulceration and destruction of the joints and phalanges. The patient states that he came on a sailing ship from Havre, France, to New Orleans, and suffered severely with pains in his head, back and extremities, attended with high fever and delirium, which continued throughout the voyage. Entered the Charity Hospital in a prostrated and almost insensible condition.

When I first saw this patient he complained of severe pain in the head, defective vision and memory, insomnia, and pains in the limbs and back. Body emits an exceedingly offensive and disgusting odor. An eruption of raised pustules, of various sizes and ages; varying from the size of a pin's head to the size of a half dollar, and filled with an opaque whitish fluid, occupy various portions of the face and forehead, and trunk. Marks of the successive crops of eruptions can be discerned upon the face, and upon various portions of the trunk and extremities. When the

pustules burst, a thick viscid matter is discharged, which forms a foul, dense crust or scab upon the surface. From some of the pustules, and especially those upon portions of the body most subjected to pressure and abrasion, as the hips, elbows, knees and feet, red fungous excrescences have arisen, resembling a large mulberry, and emitting a foul, disgusting odor. On the right cheek, over the region of the malar bone, there is an aggregation or confluent mass of these eruptions forming an elevated fungus surface of irregular shape, varying from one to two inches in diameter. On the left side of the angle of the inferior maxillary, there is another irregular mass of pustules or fungus formation, which are covered with a scab of the dead exudation. About twenty of the pustules, of various sizes, occupy the forehead. The right eyelid presents a nodulated appearance, and the left eyelid has three small pustules. Both elbows are occupied by oblong fungus, mulberry-like eruptions, discharging foul sanies; and a similar eruption is observed over both trochanters and both knees. Upon the left side numerous cicatrices, marking the site of former eruptions, are visible. This observation applies also to other portions of the body. The scrotum and integuments of the penis much swollen, and very painful. No chancres nor chancroids, nor marks of syphilitic ulcerations, observable upon penis. No induration or enlargement of the lymphatics of the groin or axilla are observable.

Fungous eruptions exist upon the joints of several of the fingers, some of which have lost the first joint, and the nails are partially or entirely missing. Several of the fingers are retracted. The toes of the left foot are retracted and deformed, and several are without nails, having lost the first phalanx. The external surface of the left ankle is covered by a fungous nodulated eruption. The right leg, ankle and foot is much swollen, and presents somewhat the appearance of elephantiasis; but the enlargement of the limb is clearly due to the effects of inflammatory action, in and around the bones of the instep and foot. A large corroding ulcer, discharging an offensive sanious fluid, exists on the posterior surface or palmar aspect of the right foot, about three inches in diameter. On the dorsal aspect of the foot there are several ulcers, resembling those formed over carious bones, which discharge a foul sanious fluid. These ulcerations communicate with the dead bones of the foot, and it appears that the continuous discharge is due to the presence of the dead bones,

which act like foreign bodies. The outer or smallest toe, as well as the next toe, have been completely destroyed. The disease has also invaded the remaining toes, and the third toe from the exterior lost one of the phalanges, after the entrance of the patient into my wards; and upon careful examination, I could discover no erosions of the surface of the bone, as in the sequestra of diseased bones and those segments thrown off after amputation of the extremities.

The increase in the size of the left foot and leg is shown by the following measurements: circumference of ankle, $13\frac{1}{2}$ inches; circumference of instep, 14 inches.*

YAWS IN THE WEST INDIES.

The existence of yaws in the West Indies was, without doubt, coeval with the importation of slaves from the coast of Africa, but the first English writer who observed and described the disease in the West Indies, was the learned physician and natura-

* *Progress of this Case.* Up to this date, January 23d, 1878, the patient has presented various changes, in accordance with the phases of the disease, but upon the whole has improved upon the plan of treatment instituted. The appearance of fresh crops of pustules has been attended with pain in the head and back, and extremities, anorexia, depression of spirits, moaning insomnia, and febrile excitement. Opium was administered to induce sleep, and iodide of potassium and tincture of iodine administered to induce some constitutional impression on the disease. After a fair trial these remedies were abandoned, and the patient placed upon bitart. of potassa $\mathfrak{z}\text{ij}$., three times a day in cup of water, and 15 drops of the tincture sesquichloride of iron three times a day in wineglassful of water. Gentle purgation, combined with the tonic action of the tincture of iron, and daily use of warm baths, and local applications of carbolic and iodine salves, yielded the best results. At this present moment all the ulcers are healed, except the large ones on the right foot, and the pustules have ceased to form, and the patient is cheerful and walks about the hospital grounds. As a local application the following was found beneficial. \mathfrak{R} —Acidi carbolic, $\mathfrak{z}\text{i}$.; acidi tannici, $\mathfrak{z}\text{ij}$.; tinct. iodinii, $\mathfrak{f}\mathfrak{z}\text{ij}$.; tinct. opii, $\mathfrak{f}\mathfrak{z}\text{ij}$.; cerati simplicis, $\mathfrak{z}\text{ij}$.; mix, apply locally to abraded surfaces with fungous growths, and to the corroding phagadenic ulcerations of the extremities. This ointment was spread upon soft prepared or English lint, and applied continuously to the ulcerated surfaces. Under this treatment, conjoined with frequent ablutions in warm water, the ulcerations and fungous surfaces have healed, and the patient is able to walk about the hospital grounds. About the middle of December, one of the phalanges of the middle toe was extracted. It presented no erosions. Since its removal, the swelling of the foot has progressively subsided. I have used the above ointment, or one of similar composition, since 1866, with satisfactory results in the treatment of gunshot wounds, and ulcerations resulting from various causes.

list, Hans Sloane, M.D., who, in 1687, went as physician to the Duke of Albemarle to Jamaica.

The great work of Dr. Hans Sloane, on the Natural History of Jamaica, was published in London in 1707. From that portion of the Introduction which relates to the diseases which he observed in Jamaica, and the method by which he "used to cure them," we extract the following observations relating to the yaws. "A negro woman, belonging to Mr. Firwood, was brought to me. She had a great many ulcers in the extremities of the fingers and toes, and about the joints. There was also several bladders filled with serum on several of her joints, as if cantharides had been applied there to raise a blister. These bladders or *cuticula*, filled with serous matter, came on either her fingers or toes every full and new moon, and in process of time each of the bladders brought an ulcer, leaving the flesh raw, and sometimes deeper, sometimes shallower corroded, so that the longer the bladders had been raised, the deeper were the ulcerations. The virulency of the humour was such, as that after it had eaten into the bone, the fingers and toes would drop off, and they die, as I have been assured by those who had lost several negroes of this disease, I was assured was peculiar to blacks." * * *

"A negro lusty fellow was taken ill of the yaws; he had not been long from *Guinea*, and was all broke out into hard whitish swellings, some greater, some lesser, from the bigness of a bean to that of a pin's head, of which last size there were many which appeared like the glands of the skin, swelled and white. When these tumors are large, they are usually white at top, from some of the cuticula and humors, dried, lying in scales over it, and sometimes they weep out an ichor. At other times the ulcers are much larger. They likewise complained sometime of great pain in the bones, and the fellow whom I cured was broke out very much about the penis, scrotum and elbows. I fluxed him by unction in an outhouse, feeding him with as much water-gruel as he could eat or drink. The flux proceeding as it was expected to do, he was quite cleared of this filthy distemper, only on his elbow he had one swelling, not quite dry, to which I applied vitriol, which made the scales fall off and heal as the rest.

"This distemper is thought to be contagious, and to be communicated from one to another, from blacks to whites, and from parents to children, but I couldn't observe it to be more or less contagious than the pox. There are few plantations without

several of these diseased persons, who are usually cured as above. Though 'tis commonly thought that fluxing does not cure without relapse, yet I, by what I could observe, find it does, and do believe the return of this disease comes from not being thoroughly fluxed by anointing, or being kept too warm, or wrong treated afterwards, whence some remains of it staying behind in the body, these dregs by degrees bring the same distemper again. * * Some sorts of this distemper seem to me to be the *elephantiasis* or true *leprosie* of the ancient and Arabian physicians. Others said to have this disease were plainly *scrofulous*, or had the king's evil, and most said to have it had the *lues venera*. Though this disease is thought to be propagated by ordinary conversation, or trampling with the bare feet on the spittle of those affected with it, yet it is most certain that it is mostly communicated to one another by copulation, as some other contagious diseases are."*

Dr. John Hume, Surgeon to the Naval Hospital in Jamaica, and a commissioner of the sick and hurt, drew the attention of British practitioners to the phenomena of this disease in an account of it published in the sixth volume of the Edinburgh Medical Essays, in 1744. Dr. Hume pointed out the resemblance of the yaws to the disease described in the thirteenth chapter of Leviticus, as affecting the Israelites in their passage through the wilderness, and Adams has expressed his belief of their identity (Obs. on Morbid Poisons, page 206). Dr. Hillary supposes that Haly Abbas, who lived in the tenth century, refers to the yaws under the general term *lepra*, both kinds of the Arabian leprosy having been described in a preceding chapter under the name (as it is translated) *elephantia*.—(Inquiry into the Means of Improving Medical Knowledge, by W. Hillary, M.D.) The yaws were next treated of by M. Virgile, who practised for several years in the Island of St. Domingo, and subsequently by M. Desportes, Peryrilhe, Dr. James Grainger, of St. Christophers, Dr. Hillary, of Barbadoes, Abbé Raynal, Bryan Edwards, Drs. Winterbottom, Dancer, Mosely, Ludford, Thomson, Thomas, Wright, and others.

* A Voyage to the Islands of Madeira, Barbadoes, Nieves, St. Christophers, and Jamaica, with the Natural History of the Herbs and two and four-footed Beasts, Fishes, Birds, Insects, Reptiles, etc., of the last of these Islands, etc. Illustrated with Figures of the things described as big as Life. By Hans Sloane, M.D., Fellow of the College of Physicians and Surgeons, and Secretary of the Royal Society. 2 vols., London, 1707. Vol. 1, Introduction, cvi., cxxvi.

Abbé Raynal, in his *Philosophical and Political History of the Settlements and Trade of the Europeans in the East and West Indies*, vol. v., pp. 272-274, says: "The yaws, which is the second disorder peculiar to negroes, and which accompanies them from Africa to America, is contracted in the birth, or by communication between the sexes. No age is free from it, but it more particularly attacks at the period of infancy and youth. Old people have seldom strength sufficient to support the long and virulent treatment which it requires.

"There are said to be four species of yaws: the yaws with pustules, large and small, as in the small-pox; that which resembles lentils; and lastly, the red yaws, which is the most dangerous of all.

"The yaws attack every part of the body, but more especially the face. It manifests itself in granulated red spots, resembling a raspberry. These spots degenerate into sordid ulcers, and the disorder at length affects the bones. It is not in general attended with much sensibility.

"Fevers seldom attack the persons who are affected with the yaws; they eat and drink as usual, but they have an almost insuperable aversion for every kind of motion, without which, however, no cure can be expected. The eruption lasts about three months * * All the negroes, as well male as female, who come from Guinea, or are born in the islands, have the yaws once in their lives. It is a disease they must necessarily pass through; but there is no instance of any of them being attacked with it a second time, after having been radically cured. The Europeans seldom or never catch this disease, notwithstanding the frequent and daily connection which they have with the negro women. These women suckle the children of the white people, but they do not give them the yaws. How is it possible to reconcile these facts, which are incontestible, with the system which physicians seem to have adopted with regard to the nature of the yaws? Can it be allowed that the semen, the blood, and the skin of the negroes, are susceptible of a virus peculiar to their species? The cause of this disorder, perhaps, is the same as that which occasions their color. One difference is naturally productive of another; and there is no being or quality that exists absolutely detached from others in nature."*

* *Philosophical and Political History of the Settlements and Trade of the Euro-*

Dr. William Hillary, in his treatise on the Diseases of the West India Islands, or the Torrid Zone, devotes a special chapter to the *yaws*, from which we extract the following.

"That disease which the negroes in Africa, and we from them in the West Indies, call the yaws, is a native of and seems to be indigenous in Africa and Arabia, and was first brought from the former by the negroes into America and its islands. This is a distemper which has been well known for many ages in Africa, and some of the neighboring countries which are situated within the torrid zone; but I do not find that any of the Greek physicians, nor yet any of the Arabians, do mention it, except Haly Abbas, the Persian Magus. * * We are credibly told that the yaws seldom fail to attack the negroes in Africa at one time or other in their lifetime, but most frequently the children and young people; and that they very rarely or never have it a second time, if they have been perfectly cured the first time. * *

"This disease generally makes its first appearance without any previous sickness or pain, and when the patient thinks himself perfectly well, in very small pimples, no bigger than the head of a small pin, and are smooth and level with the skin; these daily increase and become protuberant pustules. Soon after the cuticle turns whitish, cracks, and rubs off, and a very small quantity of serum or clear ichor exudes out and dries, and becomes white; but neither pus nor any quantity of ichor is found in the tumor, but a pretty thick, white slough appears, and under that a red fungous flesh thrusts itself out of the skin, which gradually increases to different magnitudes, some not so large as the smallest wood strawberry, some larger; others exceeding the size of the largest mulberry, which last they very much resemble, being red, and composed of little round knobs as they are. They appear differently on all parts of the body, but most frequently, and generally are the largest, about the groin, private parts, anus, under the arms, and in the face; and it is remarkable, that in general when the yaws are very large, they are fewer in number, and *à contra*, when they are more numerous they are generally smaller in size. And as the yaws are thus increasing and coming to their height, the black hairs,

peans in the East and West Indies. Revised, augmented and published in ten volumes, by the Abbé Raynal, M.D., London, 1787, p. 272.

which grow out of the places where the yaws are, gradually turn to be perfectly white, like the hairs of an old man; and the ichor which oozes out of the yaws, drying upon the skin, makes it appear of a whitish color, and renders the patient a disagreeable loathsome sight: and now the disease is become very infectious to those who handle or cohabit with them. * * The time from their first appearance in the before-mentioned pimples to their full height or growth, is very different in different constitutions, as they are stronger or weaker, and according to the negroes being well fed or the contrary; for when the negro is strong, lusty, and of plethoric habit, and is well fed, the yaws will often arrive at their full growth, and be as large as a mulberry, in a month's time from their first appearance; but when the negro is weak, low in flesh, and poorly fed, the yaws will be small, and often no larger than a strawberry, at the end of three months.

"This disease is known to be infectious, but there is also a peculiar aptitude in some constitutions to receive it more readily than in others, and probably, in the same person to receive the infection more readily at one time than another."

Dr. William Hillary presents the foregoing description as relating to the disease when left entirely to nature, but he adds that when improperly treated, and interfered with in its natural course, the fungous eruptions in the yaws may in time become phagadenic ulcers, which corrode and eat away the flesh even to the bones, and then produce nodes, exostosis and caries in them, and at last totally consume and destroy them also.

Bryan Edwards, in his *History of the British Colonies in the West Indies* (vol. ii., p. 352), says: "Among the diseases which negroes bring with them from *Africa*, the most loathsome are the *cacabay* and the *yaws*, and it is difficult to say which is the worst. The former is the *leprosy* of the *Arabians*, and the latter (much the most common) is supposed, by some writers, to be the *leprosy* mentioned in *Leviticus*, chap. xiii. * * Young negro children often catch the yaws, and get through it without medicine or much inconvenience. At a later period it is seldom or never thoroughly eradicated; and as, like the small-pox, it is never had but once, the Gold Coast negroes are said to communicate the infection to their infants by inoculation. I very much doubt if medicine of any kind is of use in this disease."

Dr. James Grainger, in his *Essay on West India Diseases*,

affirms that the yaws attacks the negroes but once, and is both tedious and difficult to cure; and when repelled, infallibly ruins the constitution.

Dr. John Williamson* says that "the yaws is a disease of such a contagious character, that white people naturally feel a horror in exposing themselves to the risk of infection. It may be communicated by flies alighting from the yawy patient and penetrating in the usual manner any part of the body, by which inoculation is effected; but I must acknowledge my doubts in the extent of this contagion in an equal degree to the whites as to the African or Creole negroes. White people may expose themselves with less risk than negroes. * * Some few instances came within my knowledge of white persons being infected with yaws from sexual intercourse; and it is dreadful to imagine the hard fate to which such persons are condemned, but absolute exclusion from society of their own color is necessary until a cure is completed. It is additionally unfortunate that the evil does not cease then. A white person who has had yaws, ever after has an *onus* attached to him, affecting his disposition, particularly should he feel inclined to form a connection by marriage with any reputable female of the country."

It appears that in general, if not always, the occurrence of the yaws is consequent to the application of its specific virus to an abraded surface of an individual in whom it has not previously existed; and this, although frequently by accident, is not unfrequently by design. According to Dr. Wright, the most usual circumstances under which it is contracted are, first, by sleeping in the same bed, and the ichor getting on the wounds or scratches of the uninfected; secondly, by handling the infected, and allowing the virus to touch scratches or excoriations; thirdly, by the use of the same bowl or basin in washing their sores which had been previously used for similar purposes by the infected negroes; fourthly and most usually, by small flies, which, having gorged themselves with the virus of the diseased, alight on the ulcers of the hitherto uninfected, its propagation being as certain by the minutest quantity as if it were ever so considerable.

The progress of the operation of the virus of yaws in the animal economy, unlike that of small-pox, is very variable in different individuals; but from the experiments of Dr. Thomson

* Medical and Miscellaneous Observations relative to the West India Islands, vol. ii., Edinburg, 1817, pp. 141-161.

it may be inferred, that from seven to ten weeks is the usual period which elapses between the insertion of the virus and the development of the eruption. In one instance, however, for which we have the authority of Dr. Adams, the interval appears to have been ten months. It has been remarked that the blood of yaw patients does not differ in appearance from that of healthy persons, and that, when used for inoculation, it fails to communicate the disease; moreover, that the infected are as liable to other diseases as persons in a healthy condition.

NOTES ON THE HISTORY OF YAWS IN THE SOUTHERN STATES.

The first recorded observations on the yaws, as appearing amongst the negroes of Louisiana, were those of the historian, M. Le Page du Pratz, who came over with a colony of eight hundred men in 1718, when New Orleans consisted of only a few huts, and who purchased slaves upon his arrival in the colony, was a planter for sixteen years, and was likewise overseer or director of the public plantations, both when they belonged to the West India Company and afterwards when they fell to the Crown—by which means he had the best opportunities of knowing the nature of the soil, climate and diseases of Louisiana. Du Pratz published his history of Louisiana one hundred and twenty years ago, namely, in 1758.

That the negroes of Louisiana, as early as 1718–1734, suffered with the yaws, syphilis and scurvy, is evident from the directions given by M. Le Page du Pratz as to "*the choice of negroes; of their distempers, and the manner of curing them*;"* from which we extract the following: "The first thing you ought to do when you purchase negroes, is to cause them to be examined by a skillful surgeon, and an honest man, to discover if they have the venereal or any other distemper. When they are viewed, both men and women are stripped naked as the hand, and are carefully examined from the crown of the head to the sole of the feet, then between the toes and between the fingers, in the mouth, in the ears, not excepting even the parts naturally concealed, though then exposed to view. You must ask your examining surgeon if he is acquainted with the distemper of the yaws, which is the virus of Guinea, and incurable by a great many

* History of Louisiana, vol. ii., pp. 255–260.

French surgeons, though very skillful in the management of European distempers. Be careful not to be deceived in this point, for your surgeon may be deceived himself; therefore attend at the examination yourself, and observe carefully over all the body of the negro, whether you can discover any parts of the skin which, though black like the rest, are, however, as smooth as a looking-glass, without any tumor or rising. Such spots may be easily discovered, for the skin of a person who goes naked is usually all over wrinkles. Wherefore if you see such marks, you must reject the negro, whether man or woman. There are always experienced surgeons at the sale of new negroes, who purchase them; and many of these surgeons have made fortunes by that means, but they generally keep their secret to themselves." * * *

"You must never put an iron instrument into the yaw; such an application would be certain death.

"In order to open the yaw, you take iron rust reduced to an impalpable powder, and passed through a fine search; you afterwards mix that powder with citron juice, till it be of the consistence of an ointment, which you spread upon a linen cloth greased with hog's grease, or fresh lard without salt, for want of a better; you lay the plaster upon the yaw, and renew it evening and morning, which will open the yaw in a very short time without any incision.

"The opening being once made, you take about the bulk of a goose egg of hog's lard without salt, in which you incorporate about an ounce of good terebinthine, after which take a quantity of powdered verdigris and soak it half a day in good vinegar, which you must then pour off gently with all the scum that floats at the top. Drop a cloth all over with the verdigris that remains, and upon that apply your last ointment. All these operations are performed without the assistance of fire. The whole ointment being well mixed with a spatula, you dress the yaw with it; after that put your negro into a copious sweat, and he will be cured. Take special care that your surgeon uses no mercurial medicine, as I have seen, for that will occasion the death of the patient."

Bernard Romans,* whose work on Florida was published in 1776, says: "I have seen three or four instances of the disease

* Concise Natural History of East and West Florida, p. 256.

called body yaws (in the islands^v, and in Carolina the lame distemper. This is said to proceed from hereditary venereal taints; it appears in cancerous corroding sores in the mouth and throat, and spreading ulcers, together with fleshy protuberances, chiefly on the face, breast and thighs, with a swelling of the shin and knee bones, and commonly corrodes the cartilages of the nose, its first symptoms showing themselves about the throat and palate, having caused ignorant people to mistake it for the *Angina Suffocativa* before described. Mercurial medicines are used against it, afterwards diet drinks of China root, nut grass, etc.; the sores in the mouth are often to be rubbed with a feather dipped in syrup of roses, to an ounce of which two drops of sp. vit. have been added: unctuous, salt, spiced meats and spirituous liquors are absolutely to be avoided; frequent sweats are also prescribed, and a great care against catching cold."

It is evident from the statements of these authors that the yaws afflicted the Africans imported to the colonies of America. It is also well established, that this disease is of comparatively rare occurrence at the present day amongst the descendants of the native Africans. These facts sustain the following propositions.

1st. The yaws is an African disease, and disappears gradually when introduced upon the North American Continent.

2d. The disease is not of a venereal nature, and is not propagated and spread in the same manner as syphilis.

3d. If hereditary, the tendency to its reproduction may be lost by change of climate, habits, and dress and diet. It is probable that increased cleanliness, more abundant supplies of clothing and wholesome food, may have been the chief causes of its disappearance amongst the negroes born on the soil of the Southern States.

RELATIONS OF YAWS TO SYPHILIS.

The yaws and syphilis have frequently been considered as modifications of the same disease. This view has found its most distinguished and able advocate in Dr. James Copland,* who says: "This distemper has existed in Africa for ages before the epidemic outbreak of syphilis in Europe at the end of the 15th

* Dictionary of Practical Medicine. Amer. ed., vol. iii., p. 1473.

century, and if not identical with, is at least a form or modification of the disease which existed in the West India Islands, when they were discovered by Columbus, and which was considered as intimately resembling, if not the same as the epidemic syphilis of the 15th and 16th centuries.

"The African syphilis, or the *yaws* as commonly termed, in all respects more closely resembles the earlier manifestations of syphilis in Europe than the modern occurrences of this distemper. Indeed, the few cases of yaws which I saw in Africa, in 1817, agreed with the early accounts of syphilis as prevalent in Europe in the 15th and 16th centuries; not only as respected the character and severity of the distemper, but also as regarded the modes of its communication and the treatment of it found most beneficial. That the yaws in Africa is identical with the yaws or pian of the West Indies, is also undoubted; and it is most probable that the identity existed before the discovery of America."

A comparison between the symptoms of syphilis and yaws will at once establish some important distinctions.

Whilst it is true that the yaws will affect the cartilages of the nose and palate, like syphilis, on the other hand, in primary syphilis neither eruptions nor fungi appear, as in the yaws, except in the pudenda, and then only in the form of warts. Syphilis will never cease spontaneously like the yaws. Persons suffering from the yaws may contract syphilis, and the latter disease cannot be cured until the yaws begin to decline.

The febrile symptoms in yaws are more marked than in syphilis, and the progress of the disease depends largely upon the state of the constitution, habits and diet of the patient.

The period of incubation after inoculation varies in the two diseases; in the case of yaws it varies from seven to ten weeks.

The eruptions or cutaneous manifestations in yaws are wholly different from those of syphilis.

LEPROSY IN THE WEST INDIES.

That leprosy was introduced into the West Indies from Africa and the south of Europe at an early day, is evident from the statements of various authors. Thus Dr. Hans Sloane, whose observations were commenced in 1687, in the Island of Jamaica, records a case which he regarded as the *Lepra Græcorum*, and

also describes the indigenous plants which were supposed to be useful in the treatment of this disease.

Dr. James Grainger, in his "*Essay on the more common West India Diseases*," published in Edinburgh, 1802, says that although the white people in the West Indies are not exempted from this dreadful calamity, the negroes are most subject thereto. "I could write a great deal upon this disorder, and but little to the purpose. Like the gout, it is the disgrace of art. I am doubtful whether it be infectious or not. The children of infected parents are not always seized with the leprosy, and I have known the wives of the leprous remain free from it for years. It is, however, the part of prudence to remove the distempered from the sound. * * I once saw a negro man whose wool grew white, and whose skin put on a farinaceous appearance. He was a hideous spectacle. His appetite was gone."

Dr. William Hillary states that the leprosy of the Arabians was first brought to the West Indies by the negroes from Africa, and "is undoubtedly a native of that quarter of the world and Arabia, and is not originally of the western part of it; neither was it ever known here before it was brought hither by the negroes, among whom it is now too frequent here, and has made its way into several families of the white people also; and it is much to be feared that it will spread further in this warm climate, into many more both white and black families, if the legislative power do not interfere, and endeavor to prevent its spreading by some suitable, wise and effectual laws, as we see the French and Spaniards have done.*

NOTES ON THE HISTORY OF LEPROSY IN THE SOUTHERN STATES.

The earliest description of leprosy in these Southern States, drawn from direct observations, appears to be that given by Captain Bernard Romans, in his rare and valuable "*Concise Natural History of East and West Florida*;" printed in New York in 1776.

The account given by Bernard Romans of the diseases of the negroes in western Florida, shortly after its passage into the

* A Treatise on such Diseases as are most frequent in or are peculiar to the West India Islands, or the Torrid Zone.

hands of the English, and which without doubt also applied to Louisiana, under the French and Spanish, is much more circumstantial and important than that of Du Pratz. Bernard Romans says that the chronic diseases amongst the blacks were *leprosy*, *elephantiasis*, and *body yaws*, called in Carolina the lame distemper.

The following description of *elephantiasis* and *leprosy*, as they prevailed in Florida more than a century ago, as given by this writer and accurate observer, will enable us to understand why, about the same time, there should have been any necessity for the foundation of a *hospital for lepers near New Orleans*.

"A loathsome disease appears sometimes among the negroes after severe acute disorders, especially if the patient has been obliged to keep his bed long, likewise after a violent exercise has brought on a surfeit: this is called the *elephantiasis*, from the swelling of the feet and legs. It is most frequently seen to affect one leg only. In the first stages of this disorder the patient becomes wretched through excessive lassitudes, which bring on an emaciation of the body, then the corrupted juices subside into the leg or legs and feet, there swell; the skin becoming distended, shines and shows the distended veins everywhere below the knee; now the skin by degrees loses its gloss, and becomes unequal and sometimes scaly. After this chaps make their appearance, the glands are stretched, and the scales are daily enlarged, appearing as hard and callous as the hide of an alligator, notwithstanding which, the slightest prick with a pointed instrument will cause the blood to exude. This disease affects neither the appetite nor the digestive powers of the body; on the contrary, the patient in this and cheerfulness of spirits resembles the healthiest of men, and the inconvenience of his heavy leg only prevents his ability for the more laborious part of his duty.

"No manner of cure has yet been found for this cruel disorder, but the patients often live to a very advanced age under the pressure of its yoke, even when it has been contracted in early youth. It is said that the amputation of the affected limbs is no cure, for the disease will immediately attack the sound leg; this I find also affirmed by Hughes, in his Natural History of Barbadoes. * * *

"The leprosy, so-called, whether the same as was the cause of proscription to the unhappy patients under the Mosaic laws, I

shall not pretend to determine. Certain it is, that it is a nauseous, loathsome and infectious disease, sometimes seen among the blacks. This appears first with the loss of beard and hair from the eyebrows, swelling of the lobes of the ears; the face begins to shine, and brown protuberances appear thereon; the lips and nose swell to a monstrous size, the fingers and toes will in the end drop off, and the body becomes at last so ulcerated as to make the poor incurable patient really a miserable object of pity.”*

ESTABLISHMENT OF A HOSPITAL FOR LEPERS IN NEW ORLEANS, IN 1785.

One of the first measures of Miro's administration, which succeeded that of Galvez, in 1785, was one of a most remarkable character in its purpose, namely, the foundation of a hospital for lepers.

Judge Martin says: “There being a number of persons in the Province afflicted with leprosy, the Cabildo erected an hospital for their reception, in the rear of the city, on a ridge of high land, between it and the Bayou St. John, which is probably the ridge anciently separating the waters of the Mississippi from those of Lake Pontchartrain.”†

The account given by the historian Gayarré‡ is more detailed and circumstantial, and is as follows:

“It is remarkable that leprosy, which is now so rare a disease, was then not an uncommon affection in Louisiana. Those who were attacked with this loathsome infirmity generally congregated about New Orleans, where they obtained more abundant alms than in any other part of the colony. They naturally were objects of disgust and fear, and the unrestrained intercourse which they were permitted to have with the rest of the population was calculated to propagate the distemper. Ulloa had attempted to stop this evil, by confining some of the lepers at the Balize, but this measure had created great discontent, and had been abandoned. Miro now determined to act with more

* Concise Natural History of East and West Florida, etc., by Captain Bernard Romans, 1776, pp. 255-257.

† The History of Louisiana from the Earliest Period, by Francois Xavier Martin, vol. ii., p. 75.

‡ History of Louisiana: Spanish Domination, pp. 166-167.

efficacy in this matter, and in his recommendation, the Cabildo or Council caused a hospital to be erected, for the reception of these unfortunate beings, in the rear of the city, on a ridge of land lying between the river Mississippi and Bayou St. John. The ground they occupied was long known and distinguished under the appellation of *La terre des Léproux*, or *Lepers' Land*. In the course of a few years the number of these patients gradually diminished, either by death or transportation, the disease disappeared almost entirely, the hospital went into decay, and *Lepers' Land* remained for a considerable length of time a wild-looking spot, covered with brambles, briars, woods, and a luxurious growth of palmettoes. It is in our day a part of Suburb Trémé, and is embellished with houses and all the appliances of civilization."

I possess no data by which to determine the precise nature of the leprosy of Louisiana, during the days of the French and Spanish domination; but it may with reason be supposed that several affections were confounded with the leprosy of the ancient Egyptians, Hebrews and Greeks, such as constitutional syphilis, elephantiasis and the yaws of Africa. Some twenty-five years ago, I observed upon the cotton and sugar and rice plantations on the coast of Georgia, amongst the surviving natives of Africa imported upon the slavers of former times, two cases of yaws and one case of leprosy; also a case closely resembling leprosy in the white race. In Louisiana I have observed two cases of yaws in negroes born in the State, and the case in which the patient was a native of Africa; three cases of elephantiasis amongst the native whites, one case in a native of Austria, one case in a native of China. In the case of a white woman, a native of New Orleans, the entire face and much of the trunk and the upper and lower extremities, were disfigured by the nodular hypertrophy of the skin.

Four cases of *leprosy* have come under my observation in Louisiana.

In 1872, a case was brought from Vermillion Parish, for the purpose of obtaining my medical advice and treatment. Upon examination, I concluded that the case was one of leprosy. I lost sight of this case up to the present month (October, 1877), when the following information was furnished by Dr. W. G. Kibbe, of Abbeville, Vermillion Parish, Louisiana.

NEW ORLEANS, Oct. 12th, 1877.

Prof. Joseph Jones, N. O.:

Dear Sir—I have been requested by Dr. W. D. White and Dr. R. Segrera, of Abbeville, Vermillion Parish, to present the following facts with reference to certain cases of leprosy. I am informed by Drs. White and Segrera that one of these cases, Felicien Ourblanc, visited New Orleans in 1872, for the purpose of obtaining your medical opinion and advice as to treatment. I am informed that your former student, Mr. Isaac Wise, of Abbeville, Vermillion Parish, accompanied this patient to your office.

After a careful examination you pronounced the case one of leprosy. I have seen several of the cases, and was consulted by Joseph Drenet, 5th case.

You will oblige Drs. White and Segrera, as well as myself, by giving us all the facts in your possession upon the history of this disease and relative diseases in the Southern States.

Respectfully, yours,

W. G. KIBBE.

LEPROSY IN VERMILLION PARISH, LOUISIANA.

The first case was an old lady, Mdm. Ourblanc. She was the daughter of Drouet (who came from the south of France many years ago). In 1866 or '7 she showed symptoms of disease; there was no physician called in. Her husband being a native of and raised in France, seemed familiar with the disease and recognized it to be that of leprosy, and it was useless to have her treated, as it was incurable. From the time of its appearance in his wife Ourblanc separated himself from her, fearing contagion. During the year 1870 she died, I am told from exhaustion, as there was extensive ulceration. She raised four sons and two daughters. One of the daughters died during the late war, from an acute disease; was grown and married at time of her death. The second daughter is living in Vermillion Parish, and is reported to have leprosy, but I have no positive proof of its correctness.

The next case was Felicien, second son of Mdm. Ourblanc,

aged about 22 years when it made its appearance in 1871. He was clerking in a dry goods store in Abbeville at the time, and remained there about the year after, when he came to New Orleans to be examined by Prof. Joseph Jones, who pronounced the disease *leprosy*. Soon after this he went to New York to be treated, and then to the Hot Springs in Arkansas; from there he went to Shreveport, La., and engaged in business, and is there at present, still suffering from the disease.

The third and fourth cases appeared near the same time about 1872, in the oldest son, Denanceux, aged about 30 years, and the youngest son, Pierre, aged about 18 years at time of its appearance. In the case of Denanceux, the disease seems to be running its course more rapidly than in the others. He is unable to do any kind of work, and much reduced in flesh and strength, is completely disfigured, scarcely looking like a human being, his beard, eyebrows and eyelashes having all fallen out, and hair is growing very thin on his head. Dr. Young, of Abbeville, informs me that there is complete anæsthesia of face, and hands and toes are in state of ulceration; he also tells me the first thing he observed in all the cases he saw, was a bright red spot on forehead. The above four cases originated in the town of Abbeville.

The fifth case is that of Joseph Drouet, aged about 35 years, and lives about eight miles from Abbeville. He is the son of Baptiste Drouet, who was a brother of Mdm. Ourblanc. He applied to me, during the summer of 1877, to be treated. He states he first noticed the disease in 1875; a small red spot on his face first attracted his attention. When I saw him, the redness was general over the face and slightly purpled; there were several large red spots on chest and a few yellow spots, and large dark brown spot on inner side of thigh extending nearly to knee; he said it had been bright red and gradually turned dark. His general health did not seem to be much impaired; his eyebrows had become very white, also lashes. He has a wife and five small children. As I was not practising I declined treating the case.

Case six was Mdm. Albert Guedry, daughter of a Dubois who is of French descent, but as far as I have learned, is not related to the Ourblancs or Drouets. She has two children, and I am told the disease is making rapid progress. She was

married, I think, in 1873, and Dr. Young informs me, had the disease at the time. She is supposed to have contracted the disease from nursing Mdm. Ourblanc during her last illness. This young girl was the only one who would remain constantly with her, except an old negro woman who attended to the room. The old negro woman says the young girl would frequently lie on the bed occupied by Mdm. Ourblanc.

Seventh case is of more recent occurrence. It is a young man by the name of Clemens, aged about 20 years, lives a few miles west from Abbeville, and is said not to be related to either of the families just named, and is suspected to have contracted the disease by contagion. In 1875, Pierre Ourblanc was peddling through the parish, and would frequently stop over night at the house where this young man was staying, and they slept in same bed. In 1877 the young man applied to a physician to be examined and treated; the disease was recognized at once as leprosy.

There are several other cases reported to be in the parish, but there is not sufficient evidence to justify me in stating the cases to be leprosy. The husband of the old lady who died of leprosy is now living in Abbeville, apparently in fine health.

The description of the preceding cases by Dr. Kibbe corresponds with my own observations on this disease in Louisiana, which presented in well marked cases discoloration of the skin, dusky red or livid tubercles of various sizes on the face, ears and extremities; thickening or rugous state of the skin, a diminution of its sensibility, and falling off of the hair, excepting that of the scalp; hoarse nasal or lost voice; ozæna; foul stinking breath; loss of mobility in the fingers and toes; ulceration of the surface, and especially about the joints of the toes and fingers; extreme fætor; difficult respiration; swelling of the fingers and toes, with fissures on the integuments; muscular atrophy; the face and countenance so disfigured with tuberculous knots as to appear deformed and horrid, like that of a satyr or lion.

The disease, as at present existing in Louisiana, demands careful investigation and isolation, and if it continues to spread, the power of the State Government, by legislative enactment, should be invoked for the legal insulation of restrictive and sanitary measures.

